Complete Summary

TITLE

Diabetes mellitus: percentage of members who have optimally managed modifiable risk factors (HbA1c, LDL, tobacco non-use, blood pressure control, aspirin usage).

SOURCE(S)

HealthPartners. Clinical indicators report: 2002 results. Bloomington (MN): HealthPartners, Inc.; 2003 Oct 1. 52 p.

Brief Abstract

DESCRIPTION

This measure assesses the percentage of members with diabetes (Type I and Type II) age 18 through 75 who have optimally managed modifiable cardiovascular risk factors.

RATIONALE

Diabetes is a complex disease that can affect many systems of the body, and is the seventh-leading cause of death in the United States.

PRIMARY CLINICAL COMPONENT

Diabetes mellitus; Hemoglobin (Hb) A1c; low-density lipoprotein (LDL); blood pressure; tobacco; aspirin

DENOMINATOR DESCRIPTION

Members with diabetes age 18 through 75 as of December 31st of the reporting year, who were continuously enrolled during the reporting year with not more than a 45-day break in coverage. Include members diagnosed with Type I and Type II diabetes at any time on or before December 31st of the reporting year.

NUMERATOR DESCRIPTION

The number of members from the denominator who reach treatment targets for all clinical components (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

PRIMARY MEASURE DOMAIN

Outcome

SECONDARY MEASURE DOMAIN

Process

EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

HealthPartners. Clinical indicators report: 2002 results. Bloomington (MN): HealthPartners, Inc.; 2003 Oct 1. 52 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Dietitians
Nurses

Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Group Clinical Practices

TARGET POPULATION AGE

Age 40 to 75 years for the "Aspirin Usage" component; age 18 to 75 years for all other measure components

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Type II diabetes accounts for about 90% of the diabetic patients in the United States. The prevalence of diabetes in the United States is about 17 million people, or roughly 6.2% of the population; 11.1 million people diagnosed and 5.9 million undiagnosed. In recent years, cases of type 2 ("adult onset") diabetes have been on the rise in the United States. Diabetes is now considered a national epidemic. Obesity is a major risk factor. More than 80% of people with type 2 diabetes are overweight. There are 26,000 HealthPartners members with diabetes which represents 4.0% of the overall population.

EVIDENCE FOR INCIDENCE/PREVALENCE

Institute for Clinical Systems Improvement (ICSI). Management of type 2 diabetes mellitus. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Nov. 80 p. [138 references]

ASSOCIATION WITH VULNERABLE POPULATIONS

Diabetes affects American Indians/Alaska Natives (AI/AN) disproportionately compared with other racial/ethnic populations and has been increasing in prevalence in AI/AN populations during the past 16 years.

Twice as many blacks suffer from diabetes as whites in the United States. Blacks who have diabetes also experience higher complication rates, greater complication-related disability, and 27% higher death rates than whites who have the disease.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion. Diabetes public health resource: national diabetes fact sheet. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2001 Dec 19.

Diabetes prevalence among American Indians and Alaska Natives and the overall population--United States, 1994-2002. MMWR Morb Mortal Wkly Rep 2003 Aug 1;52(30):702-4. PubMed

Egede LE, Zheng D. Racial/ethnic differences in adult vaccination among individuals with diabetes. Am J Public Health 2003 Feb;93(2):324-9. PubMed

BURDEN OF ILLNESS

Unspecified

UTILIZATION

In patient days (43.9%), nursing home care (15.1%), and office visits (10.9%) constituted the major expenditure groups by service settings.

EVIDENCE FOR UTILIZATION

Hogan P, Dall T, Nikolov P. Economic costs of diabetes in the US in 2002. Diabetes Care 2003 Mar;26(3):917-32. [31 references] PubMed

COSTS

The total annual economic cost of diabetes in 2002 was estimated to be $132 billion, or one out of every 10 health care dollars spent in the United States.

Direct medical costs: $91.8 billion. Indirect medical costs: $40.2 billion (disability, work loss, premature mortality).

EVIDENCE FOR COSTS

Hogan P, Dall T, Nikolov P. Economic costs of diabetes in the US in 2002. Diabetes Care 2003 Mar;26(3):917-32. [31 references] PubMed

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Members with diabetes age 18 through 75 as of December 31st of the reporting year who were continuously enrolled during the reporting year with not more than a 45-day break in coverage. Include members diagnosed with Type I and Type II diabetes at any time on or before December 31st of the reporting year.

Patients with one acute visit or two non-acute visits with a diabetes International Classification of Diseases, Ninth Revision (ICD-9) diagnosis codes during the reporting year or the year prior to the reporting year, or patients with a Health Plan Employer and Data Information Set (HEDIS) defined National Drug Classification (NDC) on a pharmacy fill.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
Members with diabetes age 18 through 75 as of December 31st of the reporting year who were continuously enrolled during the reporting year with not more than a 45-day break in coverage. Include members diagnosed with Type I and Type II diabetes at any time on or before December 31st of the reporting year.

Exclusions
Members can be validly excluded from the sample for the following reasons during the measurement year: member died, resident in nursing home, or hospice. Sampling error member does not have diabetes.

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
All members from the denominator who reach treatment targets* for all numerator components:

- Hemoglobin A1c (HbA1c) Levels--Diabetic population who had an HbA1c test during the measurement year with a level greater than 0 and less than or equal to 7 for the most recent screening.
- Low-Density Lipoprotein (LDL) Level--Diabetic population who had an LDL test during the measurement year or the year prior to the measurement year with a level less than 100 for the most recent screening.
- Tobacco Non-User--Diabetic population with documented non-smoking status
- Blood Pressure Control--Diabetic population whose blood pressure is in control less than 130/80 during the measurement year
- Aspirin Usage (age greater than 40)--Diabetic population eligible for aspirin use and who were on aspirin therapy.

*Numerator component target measure may be modified to reflect changing recommendations of treatment targets.

Exclusions
Members contraindicated to aspirin therapy are excluded from the "Aspirin Usage" component of the measure.

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative and medical records data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

OUTCOME TYPE

Clinical Outcome

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison
Prescriptive standard

PRESCRIPTIVE STANDARD

Members reaching treatment target for all risk factors. 2002 medical group benchmark is 24%. (Goal 30% in 2003 based on assessment against earlier treatment parameters of hemoglobin A1c (HbA1c) less than or equal to 8.0, low-density lipoprotein cholesterol (LDL-chol) less than 130, blood pressure (BP) less than 130/85.)

EVIDENCE FOR PRESCRIPTIVE STANDARD

HealthPartners. Clinical indicators report: 2002 results. Bloomington (MN): HealthPartners, Inc.; 2003 Oct 1. 52 p.

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

This measure has been used to report medical group and health plan performance for four years. Data accuracy has been verified by medical group and health plan personnel over that period when data were challenged.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Diabetes Quality Improvement Project (DQIP) initital measure set (final version). [Web site]. Washington (DC): National Committee for Quality Assurance (NCQA); [cited 2004 Jul 01]. [various].

Institute for Clinical Systems Improvement (ICSI). Management of type 2 diabetes mellitus. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Nov. Discussion and references. p. 38-67.

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

Identifying Information

ORIGINAL TITLE

Optimal diabetes care.

MEASURE COLLECTION

HealthPartners Clinical Indicators

MEASURE SET NAME

Diabetes Care (HealthPartners Clinical Indicators)

DEVELOPER

HealthPartners

ENDORSER

Minnesota Council of Health Plans (MN Community Measurement Project©)

ADAPTATION

Denominator definitions and hemoglobin A1c (HbA1c) and low-density lipoprotein cholesterol (LDL-Chol) numerator technical specifications are adapted from National Committee for Quality Assurance's (NCQA's) Comprehensive Diabetes Care measure; however the Health Plan Employer Data & Information Set (HEDIS) Diabetes measures reflect performance for individual components only. HealthPartners Optimal Diabetes Care measure is a patient-centered composite measure that reflects whether diabetes care was optimized for individual patients by assessing the multiple components necessary for excellent care. To be optimally managed, the patient must have all risk factors managed at treatment targets.

PARENT MEASURE

Comprehensive Diabetes Care (National Committee for Quality Assurance [NCQA] Health Plan Employer Data & Information Set [HEDIS] 2004)

RELEASE DATE

2001 Oct

REVISION DATE

2003 Oct

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

HealthPartners. Clinical indicators report: 2002 results. Bloomington (MN): HealthPartners, Inc.; 2003 Oct 1. 52 p.

MEASURE AVAILABILITY

The individual measure, "Optimal Diabetes Care," is published in the "Clinical Indicators Report, 2002 Results." This document is available in Portable Document Format (PDF) from the HealthPartners Web site.

For print copies of the Clinical Indicators Report, 2002 Results, please contact HealthPartners Performance Measurement and Improvement Department at (952) 883-5777; Web site: www.healthpartners.com.

COMPANION DOCUMENTS

The following is available:

- Institute for Clinical Systems Improvement (ICSI). Management of type 2 diabetes mellitus. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Nov. 80 p. This document is available from the Institute for Clinical Systems Improvement (ICSI) Web site.

NQMC STATUS

This NQMC summary was completed by ECRI on May 6, 2004. The information was verified by the measure developer on June 18, 2004.

COPYRIGHT STATEMENT

Date Modified: 11/1/2004